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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:	Application of R. MICHAEL GROSS	BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES
Serial No.:	10/046,592	
Filed:	January 14, 2002	
Title:	METHOD AND MEANS FOR CEMENTING A LINER ONTO THE FACE OF THE GLENOID CAVITY OF A SCAPULA	Appeal No. _____
Group No.:	3738	

APPELLANT'S APPEAL BRIEF

Honorable Commissioner of Patents and Trademarks
Alexandria, VA 22313

Dear Sir:

REAL PARTY IN INTEREST

The appellant herein has not assigned his rights to any third party; thus, appellant, R. Michael Gross, is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences that are related to this case.

STATUS OF THE CLAIMS

This is an appeal of the Examiner's final rejection of claims 1-5 and 8-16. Claim 1 is an independent claim. Claims 2-5 and 9-12 each ultimately depend from claim 1. Claim 8 is an independent claim. Claims 13-16 each ultimately depend from claim 8.

Appellant believes that each of the claims stand by themselves and, thereby, are individually allowable. Original claims 6 and 7 have been cancelled.

STATUS OF AMENDMENTS

Appellant filed an Amendment on December 14, 2005, which was responsive to an Office Action, mailed October 6, 2005. The Examiner mailed a final Office Action on March 17, 2006. Appellant filed a Notice of Appeal on June 30, 2006 and an Appeal Brief on July 6, 2006. The Examiner reopened the prosecution of this application, after appeal, by mailing a new Final Office Action on November 3, 2006. There have been no other amendments filed after either Notice of Appeal filed in this matter.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 is an independent claim, from which claims 2-5 and 9-12 each ultimately depend. The preamble of claim 1 is directed to a tool for insertion through the coracoid process and into the glenoid vault of a scapula. Claim 1 recites an elongated, rigid tube 22, having an exterior surface and an open interior portion that extends between distal and proximal ends 24 and 25. (Page 4, lines 10-12.) The tube has a length and diameter such that its distal end may be positioned in the glenoid vault and so that its proximal end 25 may be placed into communication with a suction mechanism. (Page 5, lines 9-11.)

Claim 1 further requires an elongated sleeve 32 operatively coupled with said tube 22 in a manner that permits selective, sliding movement of said sleeve along a length of the exterior surface of the tube 22. (Page 4, lines 19, 20.) The sleeve 32 has

proximal and distal ends 34 and 33, and a sealing surface 38 on the distal end 33 that is generally transverse to a long axis of the elongated sleeve 32. (Page 4, lines 21-23.)

Claim 1 also requires a gasket 40, operatively coupled to the distal end 33 of the sleeve 32 and the exterior surface of the tube 22 in a manner that permits selective, sliding movement of the gasket 40 along a length of the exterior surface of the tube 22. (Page 5, lines 1, 2 and 12-15.) The gasket 40 being positioned in a manner that establishes a seal between the distal end 33 of the sleeve 32 and the exterior surface of the tube 22. (Page 5, lines 12-15.) The gasket 40 is further positioned across a substantial portion of the sealing face 38 on the distal end 33 of the sleeve 32 and shaped and sized to permit selective sealing engagement with the coracoid process when the distal end 24 of the tube 22 is positioned in the glenoid vault. (Page 5, lines 12-22; page 6, lines 1-3.)

Claim 1 does not include any means-plus-function limitations pursuant to 35 U.S.C. § 112(6). Dependent claims 2-13 likewise do not contain any means-plus-function limitations pursuant to 35 U.S.C. § 112(6).

Claim 8 is an independent claim, from which claims 13-16 each ultimately depend. The preamble of claim 8 is directed to a tool for drawing external material into the honeycomb structure of a bone by providing negative pressure to a bone cavity. Claim 8 recites a suction mechanism capable of generating a suction force. (Page 5, lines 9-11.) Claim 8 further requires an elongated tube 22 having distal and proximal ends 24 and 25 and an outer surface. (Page 4, lines 10-12.) Claim 8 then requires that the distal end 24 of the elongated tube 22 be positionable within the bone cavity,

and the proximal end 25 the elongated tube 22 be in operative communication with the suction mechanism. (Page 5, lines 9-12.)

Claim 8 also requires a sleeve 32, having proximal and distal end portions 34 and 33, that is slidably coupled with the outer surface of the elongated tube 22. (Page 4, lines 19, 20.) The distal end portion 33 of the sleeve 32 has a sealing surface 38 that is shaped and sized for selective sealing engagement with the bone when the distal end 24 of the elongated tube 22 is positioned in the bone cavity. (Page 5, lines 1, 2 and 12-15; page 6, lines 1-3.)

Claim 8 does not include any means-plus-function limitations pursuant to 35 U.S.C. § 112(6). Dependent claims 13-16 likewise do not contain any means-plus-function limitations pursuant to 35 U.S.C. § 112(6).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner objected to the drawings under 35 U.S.C. § 1.83(a), for not depicting the "suction mechanism."

The Examiner objected to the specification because the limitation the "proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube", could not be found within the specification.

The Examiner rejected claims 1 and 3 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,915,694 to Yamamoto, et al.

The Examiner rejected claims 1, 2 and 4, 8-11 and 13-15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,197,949 to Angsupanich, in view of the Yamamoto, et al. reference.

Finally, the Examiner rejected claims 5, 12, and 16 under 35 U.S.C. § 103(a) as being unpatentable over the Angsupanich and Yamamoto, et al. references, in further view of U.S. Patent No. 5,693,030 to Lee et al.

ARGUMENT

(A) The drawings are acceptable under 37 CFR 1.83(a).

The Examiner incorrectly argues that the "suction mechanism" is not depicted within the Figures. Figures 3 and 4 clearly depict a suction tube that is coupled to, and extends away from, the proximal end 25 of the tube 22.

Under 37 CFR 1.83(a) every feature of the invention specified in the claims must be shown. Appellant has done so in this matter. Moreover, 37 CFR 1.83(a) clearly states that conventional features disclosed in the description and claims may be drawn in the form of graphical drawing symbols, where their detailed illustration is not essential for a proper understanding of the invention. It should be clear that a person of ordinary skill in the art will understand surgical devices that utilize suction mechanisms. Depicting suction tubes ("mechanisms") coupled to the proximal end of the device 10 will clearly provide a proper understanding of the invention to those of skill in the art. Accordingly, the drawings are believed to be acceptable.

(B) The specification is acceptable under 35 U.S.C. § 1.75(d)(1).

Claims 10 and 14 contain the limitation that the "proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube." Figures 1-5 each clearly show an outwardly flared shape, formed at the proximal end of

the tube. This flared portion is clearly depicted as being "shaped and sized to have a diameter greater than an intermediate portion of said tube".

The subject language must be read in context with the remaining portions of the claims. More specifically, for example, claim 10 ends by stating that the "proximal end of said tube being shaped and sized relative to said tube to substantially prevent unintended removal of said sleeve from said tube." Claim 1 recites the limitation that the gasket is positioned in a manner that establishes a seal between the distal end of said sleeve and the exterior surface of said tube. The Figures depict the sealing engagement as occurring along a length of the tube corresponding to the intermediate (narrow) portion referenced in claim 10. It will be clear, even to those of less than ordinary skill in the art, after a brief review of the Figures, that the flared proximal end of the tube will substantially prevent removal of the sleeve from the proximal end of the tube.

The Examiner argues that the lack of a detailed written description of the aforementioned claimed features runs afoul of 37 CFR 1.75(d)(1), which states:

> "The claim or claims must conform to the invention as set forth in **the remainder of the specification** and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." (emphasis added)

Clearly, 37 CFR 1.75(d)(1) makes it clear that the "remainder of the specification" must be such that the meaning of the terms in the claims may be ascertainable by reference thereto. Drawings may be used to determine disclosure compliance. Chisum, Chisum on Patents, § 11.02[1][b](2006). It has routinely been held that to argue that drawings

alone cannot form the basis of a valid claim, "is too broad a generalization to be valid and is, furthermore, contrary to well-established and long-established Patent Practice." in re Wolfensperger 302 F2.d 950, 955 (CCPA 1962).

35 U.S.C. § 113 further confirms, by implication, that a drawing in an application **as filed** can contribute to the specification's sufficiency. Specifically, § 113 provides that drawings submitted after the filing date cannot "overcome any insufficiency of the specifications due to lack of an enabling disclosure or otherwise inadequate disclosure therein." To be sure, design patent applications, which are part of the subject of the aforementioned Regulations and Sections, utilize drawings as their sole means of disclosure. The practical, legitimate enquiry in each case of this kind is what the drawing discloses to one skilled in the art. Id. Accordingly, the Specification is believed to be acceptable.

(C) Claims 1 and 3 are patentable under 35 U.S.C. § 102(b) over U.S. Patent No. 4,915,694 to Yamamoto, et al.

Anticipation under 35 U.S.C. § 102 focuses on the questions of whether or not a claim reads on the product or process disclosed by a prior art reference, not what the reference broadly "teaches." Kalman v. Kimberly-Clarke Corp., 712 F.2d 760 (Fed. Cir. 1983). "For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed function must be identically shown in a single reference." Diversitech corp. v. Century Steps, Inc., 850 F.2d 675 (Fed. Cir. 1988); Verdigaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir.

1987) (A claim in anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.).

The language of claim 1 specifically defines a sealing face on the distal end of the sleeve that is generally transverse to a long axis of the sleeve. Claim 1 states that the gasket is positioned across a substantial portion of the sealing face on the distal end of the sleeve to permit selective sealing engagement with the coracoid process when the distal end of said tube is positioned in the glenoid vault. Claim 1 further requires, "said gasket being positioned in a manner that establishes a seal between the distal end of said sleeve and the exterior surface of said tube." Yamamoto, et al. fail to teach or otherwise suggest a device with such a structural arrangement.

Yamamoto, et al. do not teach the use of a gasket such as commonly understood in the art as a structure capable of producing a seal between structures. To be sure, Yamamoto et al. teach an **absorbent patch 14** containing an antimicrobial agent. Col. 2, Lines 21 – 22. The patch 14 is made of an absorbent material. Col. 2, Lines 22 – 24. The patch 14 is loaded with an antimicrobial agent that is gradually released due to the absorbent nature of the patch 14. Col. 3, Lines 16 – 20. Accordingly, patch 14 is designed for the free exchange of liquids and other materials **not** as a device that causes a seal between structures. Accordingly, no "sealing engagement with the coracoid process" or "between the distal end of said sleeve and the exterior surface of said tube" can be effected, as claimed. Moreover, Figure 2 of the Yamamoto et al. patent clearly indicates that the patch 14 is not positioned with respect to the sleeve and the exterior surface of the tube as claimed.

It is the claimed arrangement that permits a sealing engagement not only between the tube and the sleeve but also between the sleeve and the bone. The structural arrangement of the Yamamoto, et al. device is significantly different from the claimed device and, as such, is incapable of performing the procedure for which the present device was designed. Thus, the Yamamoto, et al. reference cannot anticipate claim 1. Diversitech Corp. v. Century Steps, Inc., 850 F. 2d 675 (Fed. Cir. 1988); Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

CLAIM 3

Claim 3 depends from Claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to Claim 1.

The aforementioned rejection should be reversed and claims 1 and 3 should be allowed.

(D) Claims 1, 2, 4, 8-11 and 13-15 are patentable over the Examiner's suggested modification of U.S. Patent No. 5,197,949 to Angsupanich in view of the Yamamoto et al. reference under 35 U.S.C. § 103(a).

CLAIM 1

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary

skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP § 2143. None of these required elements can be found in this matter.

The Examiner states that Angsupanich discloses a tool having all of the structural limitations found within claims 1, 2, 4, 8-11, 13 and 15, except for the claimed gasket and sleeve. The Examiner states, however, that the Yamamoto, et al. reference teaches such a structural arrangement. As discussed hereinabove, however, Yamamoto, et al. reference does not teach a sealing gasket, let alone one that is positioned to establish a seal between the distal end of the sleeve and the exterior surface of the tube. Accordingly, a person of skill in the art would not look to the Angsupanich and Yamamoto, et al. references, on any objective basis, when looking to create a surgical device having a sleeve that is slidably positionable along a suction tube with a sealing gasket that selectively seals the opening of a bone cavity into which the tube is placed and further creates a seal between the sleeve and the tube. The structural characteristics claimed by the Examiner to be present within Yamamoto, et al. are not found within the reference. Accordingly, there can be no claimed suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference

teachings as claimed by the Examiner. Without all the component structural characteristics, no success can be expected from the Examiner's modifications to the prior art devices. Finally, without the claimed structural components and structural interactions, the prior art references cannot render the claim obvious.

The Examiner is not considering the claimed invention or the prior art as a whole. In determining the difference between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). A prior art reference and the claimed invention must be considered in their entireties. Distilling an invention down to the "jist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole." W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *Cert. denied*, 469 U.S. 851 (1984). A surgical device having a sleeve that is slidably positionable along a suction tube, with a sealing gasket in order to selectively seal between the sleeve and tube and against the tube and the opening of a bone cavity into which the tube is placed is clearly unique to the art. No suggestion or motivation can be found within the art for such a device.

The prior art must suggest the desirability of the claimed invention. There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58

(Fed. Cir. 1998) (Stating that the combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so, found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (While the control of multiple valves by a single sensor rather than by multiple sensors was a "technologically simple concept," there was no finding "as to the specific understanding or principle within the knowledge of the skilled artisan" that would have provided the motivation to use a single sensor as the system to control more than one valve). Similarly, in this matter, the concept is structurally simple. However, no suggestion or motivation can be found within the references individually or together for providing a surgical device having a sleeve and gasket combination as claimed.

Furthermore, the fact that references can be modified is not sufficient to establish *prima facie* obviousness. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so." Id. Also, "a statement that modifications of the prior art meet the claimed

inventions would have been 'well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art' is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993); *see also*, In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) (The court reversed an obviousness rejection involving a technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention). It is not clear that the Angsupanich and Yamamoto, et al. references can be modified in the manner suggested by the examiner. To be sure, no sliding sleeve that is in sealing engagement with the tube would be present, let alone a gasket that is positioned across a substantial portion of the sealing face of the sleeve and between the tube and sleeve such that a seal is created therebetween, as claimed.

The Examiner's proposed modification would render the Yamamoto, et al. device unsatisfactory for its intended purpose. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to

render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The Yamamoto, et al. device is used with a patch that is made from an absorbent material. The absorbency is used to store an antimicrobial liquid, which is dispensed from the patch as the device is used. Therefore, the use of a sealing gasket instead of a patch would prevent retention and distribution of an antimicrobial substance, would negate the entire design of the Yamamoto, et al. device, and would render it unsatisfactory for its intended purpose.

The prior art can be modified or combined to reject claims as *prima facie* obvious only where there is a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Obviousness does not require absolute predictability, however, at least some degree of predictability is required. In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). Due to the completely different structural designs, and lack of claimed structures (gasket), of the Angsupanich and Yamamoto, et al. devices, there is no reasonable expectation of successfully sealing between the sleeve and the tube, let alone sealing a bone cavity and creating negative pressure therein with the modified structure suggested by the Examiner.

CLAIM 2

Claim 2 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1.

CLAIM 4

Claim 4 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1.

CLAIM 8

The Examiner states that the Angsupanich reference discloses a tool having all of the structural limitations found within claim 8, except for a sleeve that is slidably coupled to the exterior of a suction tube and a sealing surface. The Examiner argues that the Yamamoto, et al. reference teaches such a structural arrangement. As discussed hereinabove, however, Yamamoto, et al. does not teach a sealing surface of any nature. Accordingly, a person of skill in the art would not look to the Yamamoto, et al. reference, on any objective basis, when looking to create a surgical device having a sleeve with a sealing surface that is slidably positionable along a suction tube, in order to selectively seal the opening of a bone cavity into which the tube is placed. The structural characteristics claimed by the Examiner to be present within Yamamoto, et al. are not found within the reference. Accordingly, there can be no claimed suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings as claimed by the Examiner. Without all the component structural characteristics, no success can be expected from the Examiner's modifications to the prior art devices. Finally, without the claimed structural components and structural interactions, the prior art references cannot render the claim obvious.

The Examiner is not considering the claimed invention or the prior art as a whole. In determining the difference between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc.

v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). A prior art reference and the claimed invention must be considered in their entireties. Distilling an invention down to the "jist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole." W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *Cert. denied*, 469 U.S. 851 (1984). A surgical device having a sleeve with a sealing surface that is slidably positionable along a suction tube, in order to selectively seal against the tube and the opening of a bone cavity into which the tube is placed is clearly unique to the art. No suggestion or motivation can be found within the art for such a device.

The prior art must suggest the desirability of the claimed invention. There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (Stating that the combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so, found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of

ordinary skill in the art. In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (While the control of multiple valves by a single sensor rather than by multiple sensors was a "technologically simple concept," there was no finding "as to the specific understanding or principle within the knowledge of the skilled artisan" that would have provided the motivation to use a single sensor as the system to control more than one valve). Similarly, in this matter, the concept is structurally simple. However, no suggestion or motivation can be found within the references individually or together for providing a surgical device having a sleeve with a sealing surface that is slidably positionable along a suction tube, in order to selectively seal against the tube and the opening of a bone cavity into which the tube is placed.

Furthermore, the fact that references can be modified is not sufficient to establish *prima facie* obviousness. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so." Id. Also, "a statement that modifications of the prior art meet the claimed inventions would have been 'well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art' is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993); *see also*, In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) (The court reversed an obviousness rejection involving a technologically

simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention). It is not clear that the Angsupanich and Yamamoto, et al. references can be modified in the manner suggested by the examiner. To be sure, no sliding sleeve with a sealing surface that is in sealing engagement with the tube would be present, as claimed.

The Examiner's proposed modification would render the Yamamoto, et al. device unsatisfactory for its intended purpose. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The Yamamoto, et al. device is used with a patch that is made from an absorbent material. The absorbency is used to store an antimicrobial liquid, which is dispensed from the patch, while it is used. Therefore, the use of a sealing surface in place of an absorbent patch would prevent the retention and distribution of an antimicrobial substance, negate the entire design of the Yamamoto, et al. device, and would render it unsatisfactory for its intended purpose.

The prior art can be modified or combined to reject claims as *prima facie* obvious only where there is a reasonable expectation of success. In re Merck & Co., Inc., 800

F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Obviousness does not require absolute predictability, however, at least some degree of predictability is required. In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). Due to the completely different structural designs, and lack of claimed structures (sleeve), of the Angsupanich and Yamamoto, et al. devices, there is no reasonable expectation of successfully sealing a bone cavity and creating negative pressure therein with the modified structure suggested by the Examiner.

CLAIM 9

Claim 9 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1.

CLAIM 10

Claim 10 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1. Furthermore, claim 10 requires that the proximal end of the tube is shaped and sized to have a diameter greater than an intermediate portion of said tube. This shapes and sizes the tube to "substantially prevent unintended removal of said sleeve from said tube." Neither Angsupanich nor Yamamoto, et al. teach such a structural arrangement. Clearly, both of the cited prior art references teach tubes having a generally uniform diameter throughout their lengths. Accordingly, the cited prior art does not teach or otherwise suggest the modified structure suggested by the Examiner.

CLAIM 11

Claim 11 depends from claims 1 and 10 and is believed to be allowable for at least the reasons set forth herein with respect to claims 1 and 10.

CLAIM 13

Claim 13 depends from claim 8 and is believed to be allowable for at least the reasons set forth herein with respect to claim 8.

CLAIM 14

Claim 14 depends from Claims 13 and 8 and is believed to be allowable for at least the reasons set forth herein with respect to Claims 13 and 8.

CLAIM 15

Claim 15 depends from claims 14, 13 and 8, respectively. Accordingly, claim 15 and is believed to be allowable for at least the reasons set forth herein with respect to claims 14, 13 and 8.

For at least the aforementioned reasons, the Examiner's rejections should be reversed and claims 1, 2 and 4, 8-11, 13, 14 and 15 should be allowed.

(E) Claims 5, 12, and 16 are patentable under 35 U.S.C. § 103(a) over the Examiner's suggested combinations of the Angsupanich and Yamamoto, et al. references, in further view of U.S. Patent No. 5,693,030 to Lee, et al.

CLAIM 5

Claim 5 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1.

CLAIM 12

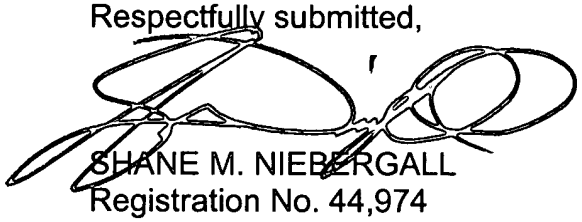
Claim 12 depends from claims 11, 10, 4 and 1, respectively. Accordingly, claim 12 and is believed to be allowable for at least the reasons set forth herein with respect to claims 11, 10, 4 and 1.

CLAIM 16

Claim 16 depends from claims 15, 14, 13 and 8, respectively. Accordingly, claim 16 and is believed to be allowable for at least the reasons set forth herein with respect to claims 15, 14, 13 and 8.

For at least the aforementioned reasons, the Examiner's rejections should be reversed and Claims 5, 12 and 16 should be allowed.

Respectfully submitted,



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I hereby certify that the original of this APPELLANT'S APPEAL BRIEF for R. MICHAEL GROSS, Serial No. 10/046,592, was mailed by first class mail, postage prepaid, to the Mail Stop Appeal Briefs-Patent, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 28th day of December 2006.

SHANE M. NIEBERGALL

CLAIMS APPENDIX

1. A tool for insertion through the coracoid process and into the glenoid vault of a scapula, comprising:

an elongated, rigid tube, having an exterior surface and an open interior portion that extends between distal and proximal ends; said tube having a length and diameter such that its distal end may be positioned in the glenoid vault and so that its proximal end may be placed into communication with a suction mechanism;

an elongated sleeve operatively coupled with said tube in a manner that permits selective, sliding movement of said sleeve along a length of the exterior surface of said tube; said sleeve having proximal and distal ends and a sealing face on said distal end that is generally transverse to a long axis of said elongated sleeve; and

a gasket operatively coupled to the distal end of said sleeve and the exterior surface of said tube in a manner that permits selective, sliding movement of said gasket along a length of the exterior surface of said tube; said gasket being positioned in a manner that establishes a seal between the distal end of said sleeve and the exterior surface of said tube; said gasket being further positioned across a substantial portion of the sealing face on the distal end of said sleeve and shaped and sized to permit selective sealing engagement with the coracoid process when the distal end of said tube is positioned in the glenoid vault.

2. The tool of claim 1 wherein said distal end of said tube has a plurality of openings formed therein.

3. The tool of claim 1 wherein said distal end of said tube has an arcuate portion.

4. The tool of claim 1 wherein said tube is provided with an angular bend, adjacent the distal end of said tube, so that the open interior portion of said tube extends along a non-linear path between said proximal and distal ends.

5. The tool of claim 1 further including a flexible obturator which may be selectively extended through said tube to clear said tube of debris.

6. (Canceled)

7. (Canceled)

8. A tool for drawing external material into the honeycomb structure of a bone by providing negative pressure to a bone cavity, comprising:

a suction mechanism capable of generating a suction force;

an elongated tube having distal and proximal ends and an outer surface;

said distal end of said elongated tube being positionable within the bone cavity, and said proximal end of said elongated tube being in operative communication with said suction mechanism; and

a sleeve, having proximal and distal end portions, that is slidably coupled with the outer surface of said elongated tube; said distal end portion of said sleeve having a sealing surface that is shaped and sized for selective sealing engagement with the bone when the distal end of said elongated tube is positioned in the bone cavity.

9. The tool of claim 1 further comprising a suction mechanism, capable of generating a suction force, operatively coupled with the proximal end portion of said tube.

10. The tool of claim 4 wherein the proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube; said bend, adjacent the distal end of said tube, and the proximal end of said tube being shaped and sized relative to said tube to substantially prevent unintended removal of said sleeve from said tube.

11. The tool of claim 10 wherein said distal end of said tube has a plurality of openings formed therein.

12. The tool of claim 11 further including a flexible obturator which may be selectively extended through said tube to clear said tube of debris.

13. The tool of claim 8 wherein said tube is provided with an angular bend, adjacent the distal end of said tube, so that the open interior portion of said tube extends along a non-linear path between said proximal and distal ends.

14. The tool of claim 13 wherein the proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube; said bend, adjacent the distal end of said tube, and the proximal end of said tube being shaped and sized relative to said tube to substantially prevent unintended removal of said sleeve from said tube.

15. The tool of claim 14 wherein said distal end of said tube has a plurality of openings formed therein.

16. The tool of claim 15 further including a flexible obturator which may be selectively extended through said tube to clear said tube of debris.

EVIDENCE APPENDIX

Not applicable.

RELATED PROCEEDINGS APPENDIX

Not applicable.